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INQUIRY INTO THE DEVELOPMENT OF NORTHERN AUSTRALIA

Shire of Roebourne Submission 17 February, 2014



Karratha

Dampier

Wickham

Roebourn

Point Samson

Cossack

"It has always been the case that regional Australia drives our country's economic prosperity. When the regions are strong, so is our nation. Too often these days that fact is forgotten – or just ignored. Unless we can bring businesses and people to regional cities and develop new commercial hubs, the 40 million people Australia is expected to have by 2050 will grind our cities into potential gridlock.

It is a little known fact that Australia's population is already one of the most densely concentrated in the OECD – almost double the OECD average. Just under 90% of our population is crammed into 3% of the landmass – namely Sydney and Newcastle, Melbourne, Brisbane, Adelaide, Perth and Queensland's south-east.

That's not a sustainable population."

The Hon Warren Truss MP Keynote address to the 2013 Federal Council of the National Party.

"With its abundant resources and proximity to Asia, Northern Australia is set to become the new frontier in the economic development of Australia, opening up new opportunities which will benefit the entire nation.

With the right policies and incentives in place, Northern Australia has the capacity to become a leader in agriculture, minerals and energy, tourism, research and education. We must remove impediments to growth and set the stage for innovation and investment."

> The Hon Warren Entsch MP Committee Chair

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EXECUTIVE SUMMARY

Northern Australia is a large and diverse portion of the nation. In order for the region to truly take its place with the Asia Pacific rim, and capitalise on its many strengths, government must understand that diversity. An effective strategy for developing Australia's north will not be achieved through a one-size-fits-all approach. Arguably the Pilbara is the most unique of all the northern regions, and as such needs to be considered both as a single entity as well as part of the whole.

The Pilbara region has been described as the engine room of Australia's economic growth, producing 6% of Australia's total GDP. Within this region is the Shire of Roebourne, which produces the sixth largest economic output of all Australian municipalities.

Now approaching a residential population of 25,000, Council have decided to progress to city status, however there is still work to be done before Karratha becomes a city of choice. Infrastructure shortfalls along with the high costs of living and doing business all contribute to a challenging environment for our municipality in providing the level of services and amenities required to attract permanent residents while remaining financially sustainable.

The Shire of Roebourne welcomes the government's Inquiry into the development of Northern Australia and puts forward the following key actions that we believe will encourage growth and investment in our region:

- Action 1 Urgent investment in critical social and economic infrastructure.
- Action 2 Reduction of red tape.
- Action 3 Establishment of a Conducive Regulatory, Taxation and Legislative Environment.
- Action 5 Seed funding for research and development.
- Action 6 Coordinated approach and two way communication between all tiers of government.
- Action 7 Enhanced trade and investment with Asia-Pacific
- Action 8 Enhanced presence of Australian Government Agencies

Moving forward, the Pilbara's priorities are broadly aligned with those of other northern regions. The overwhelming dominance of the mining sector has inflated prices and crowded out other industries despite the need for industry diversification.

Growth potential in the Pilbara is unparalleled, but the barriers to entry are higher than anywhere else in Australia's great north. The single greatest focus for government needs to be an interventionist approach to break through those barriers (many associated with market failure) and allow development to occur.

Now "open for business", the Shire of Roebourne is ready to embrace the opportunity to partner in a shared vision where the Pilbara region is a key driver of development in Australia's Northwest.

1. INTRODUCTION

The Shire of Roebourne is located in the dynamic Pilbara region of northwest Western Australia (WA). Described as the engine room of Australia's economic growth, the Pilbara contributes the following to the national economy:

- 95% of Australia's iron ore production
- 70% of Australia's natural gas production
- 85% of Australia's crude oil and condensate production
- \$900 m petroleum resources rent tax (52% of national total)
- The Pilbara produces 6% of Australia's total GDP

Projected earnings in the Pilbara are estimated to reach \$211 billion by 2018. As a whole, the Pilbara contributes \$4.36 billion in state royalties.

1.1 The Shire of Roebourne

Established in 1961, the Shire of Roebourne comprises the towns of Karratha, Dampier, Wickham, Roebourne, Point Samson and Cossack.



The transformation of Karratha, the Shire's thriving regional centre, from a mining town to a major Australian city is well underway.

Our economy is now starting to see expansion and diversification of industry. This has resulted in population growth, and new housing being built at an unprecedented rate. As a local government, we have responded by collaborating with private industry and the State Government to deliver new quality infrastructure not previously seen this far north in WA. With a residential population now approaching 25,000, Council have decided to progress to city status and it is anticipated that arrangements will be in place for this to occur mid 2014.

We cannot, of course, build a city of choice in Karratha all on our own.

Recently, the Shire of Roebourne was invited by the State Government to join the Western Australian Regional Capitals Alliance (WARCA) along with the Cities of Albany, Bunbury, Broome, Greater Geraldton and Kalgoorlie-Boulder. This vote of confidence in our municipality as a legitimate and respected regional community has allowed us to engage equally in a

collaborative alliance to lobby State and Federal Governments for continued improvements to infrastructure and funding allocations of which are required to continue growing the region sustainably.

To date, the State Government has shown its commitment to the region by investing more than \$1 billion in Royalties for Regions funding. Much of this has gone into the development of Karratha. Funding has been spent on fast tracking housing construction, improving utilities and roads, as well as creating additional commercial/industrial space in an effort to improve the overall quality of life.

However there is still work to be done. Infrastructure shortfalls along with the high costs of living and doing business all contribute to a challenging environment. For our municipality to continue to prosper, to remain financially sustainable while providing the levels of services and amenity required to attract and retain permanent residents, the Shire of Roebourne require significant investment into both economic and social infrastructure.

1.2 Shire of Roebourne Demographics

With an estimated residential population of 24,626 (2012), the Shire of Roebourne has had the highest growth rate of any regional capital in WA over the last decade.



Estimated Resident Population, Shire of Roebourne

Source: Australian Bureau of Statistics, Regional Population Growth, Australia (3218.0). Compiled and presented by .id the population experts

Key statistics from the 2011 ABS census data include:

- Males (60%) Females (40%)
- Households renting 57%
- Average age was 32
- 17.3% have a tertiary qualification, 25.6% have vocational qualifications
- 77% are in in full time employment, 18.5% in part time employment.

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1.3 Shire of Roebourne Economics

- Headline Gross Regional Product (2012): \$18.17 billion •
- Largest industry by employment (2012): Mining 5,775 jobs •
- Largest industry by value added (2012): Mining \$12.25 billion •
- Largest industry by output (2012): Mining \$18.9 billion •
- The Shire of Roebourne produces 8.3% of WA's total exports
- 20% of Australian goods exports are produced by 0.2% of the national population. •



The Shire of Roebourne has the sixth largest economic output of all Australian municipalities and the second largest non-capital city economy after the City of Gold Coast.



- Sixth largest LGA GRP in Australia
- Second largest non-capital LGA GRP in Australia
- Second largest LGA GRP in WA



Source: National Institute of Economic and Industry Research (NIEIR) ©2013. Compiled and presented in economy.id by .id the population experts

1.4 Competitive Advantages of the District

Some of the key advantages include:

- **Career Opportunities** Higher average incomes than the state and national averages, low unemployment and accelerated career prospects
- **Change of Lifestyle** Less densely populated, towns in the Shire of Roebourne offer seaside living and a family friendly lifestyle. Work life balance for some, and bulk leave for others, allows residents more time to undertake hobbies.
- **Outdoor Activities** such as four-wheel driving, boating, fishing and diving.
- Climate a warm, sunny blue-skied paradise
- **Transport Options** No traffic jams and ease of travel create savings in time and fuel costs.
- *Land* Industrial areas are currently available for major industry development at the Burrup Peninsula, Maitland Industrial Estate and planning is underway for the new Anketell Strategic Industrial Area.
- Industry Opportunities Growth opportunities are plentiful within existing industry sectors providing global business experience on some of the world's largest natural resource projects. With a strategic Asia-Pacific location, the Pilbara is *"open for business"* for the development of new industry sectors.
- **Places of Interest** The Pilbara offers world class national parks and indigenous heritage experiences such as the world's largest agglomeration of indigenous rock art.
- Government Focus Utilised as the regional hub for government services in the North West, the Pilbara has had extensive development planning undertaken resulting in the Karratha City of the North Plan; Shire of Roebourne Strategic Community Plan and Local Planning Strategy, Pilbara Plan (RDA Pilbara); Pilbara Blueprint (PDC), Pilbara Planning and Infrastructure Framework (DOP).

1.5 Benefits of Doing Business in the Shire of Roebourne

Australia's attractiveness as an investment destination is based on its longstanding economic resilience, its sound regulatory framework for business, and a stable political system.

The Shire of Roebourne offers a range of business advantages over other areas such as:

- A stable and lucrative economy
- Residents with a high level of disposable income
- A capable, supportive and outcomes focussed local government
- A solid growth forecast for the region
- A strategic Indian Ocean rim location with the same time zone as China
- Identified as a regional capital by both state and federal governments, Karratha is moving to city status bringing new opportunities to the region designed to stimulate investment, attract grants, and retain highly skilled residents.

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Strengths	Weaknesses	Opportunities	Threats
Reputation for minerals & resources industry	Transient population	Room for new SME business ventures	High priced housing & accommodation
Young, diverse and increasing population	Inability to attract the quantity of skilled staff required	Regional self- sustainability (food, electricity and fuel)	Overcrowded governance with uncoordinated strategic planning and economic development between agencies, minimal implementation
High Disposable incomes	Insufficient health care facilities	Trade, investment & closer relations with Asia	Increase of cyclones & fires
Location within the Pilbara and distance from sea ports	Lack of childcare and educational options	Diversification into new industries – sustainable energy, tourism, aquaculture, and emergency management	Poor access to communications technology (phone coverage and fast speed internet)
Relative proximity to Asia	Minimal aged care provisions	Entertainment and activities for residents	Intense summer heat
Low levels of poverty and unemployment Entrepreneurial Spirit	Customer service High living costs	High research and development potential Implementation of incentives for investment	Continued FIFO growth Land restrictions
Lifestyle opportunities and outdoor activities Stunning rugged scenery & stability of weather conditions	High cost of doing business Transport options	Raise and improve the profile of the Pilbara	Inadequate social and economic infrastructure Inadequate funding to support desired growth

1.6 SWOT Analysis of the Region

2. IDENTIFIED INDUSTRIES

The following sections focus on the five existing industry sectors in Northern Australia – minerals, energy, agriculture, tourism and defence.

2.1 Mineral Industry

The Pilbara is dominated by the minerals industry and is considered to be WA's premier mining region. Capital intensive, with a high demand for skilled labour, this industry along with the remote nature of the Pilbara region, has led to significant living and business costs.

2.1.1 Current Situation

As the largest employer within the Shire of Roebourne, the mineral industry produced 5,775 jobs in 2012, predominately in iron ore extraction and salt production. These industries have provided the Shire with experience working with multi-national companies and their business requirements for some of the largest projects in the world.

• *Iron Ore:* In 2012-13, 513 million tonnes of iron ore was exported from the Pilbara, at a value of \$56.4 billion, around 40% of world production. The main industry players include Rio Tinto, BHP Billiton and Fortescue Metals Group.



Strong economic growth in large emerging nations, such as China and India, has lifted steel production, fuelling demand for iron ore and boosting its price. Rising prices have led to capacity expansions and large-scale increases in Australia's iron ore output, resulting in a 16% growth in revenue each year between 2009 and 2013.

- **Salt:** WA accounts for over 80% of the salt production in Australia. Of this, Dampier Salt Limited accounts for 76% of the total salt produced in WA and is the largest exporter of high-quality bulk, solar salt. Production levels continue to trend upwards yielding growth of 1-3% annually.
- **Other minerals:** Minerals such as gold (the second largest gold mine in Australia), silver, copper, manganese, salt, construction materials (rock sand), tantalite, tin and gems are also mined in the Pilbara region. This created a total value of \$2.2 billion for the region's economy in 2012-13.



WESTERN AUSTRALIAN MINERAL AND PETROLEUM STATISTICS DIGEST 2012-13

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2.1.2 Potential for Developing the Mineral Industry

The Shire is able to accommodate new players in the minerals industry and the following key areas have been identified for development:

- Mining of magnetite to satisfy Chinese demand mining has recently started within the Shire and has the potential to grow.
- Further exploration for other mineral deposits including nickel, tungsten, platinum etc
- Port and other heavy infrastructure expansion (such as rail)
- Development of remote mining technology to continually reduce on-site labour costs (this is likely to impact on the number of unskilled people required by this industry as focus moves to skilled professionals)
- Establishing value adding industries such as the down stream processing of minerals prior to export.

The most important aspect in developing the minerals industry is to ensure that the development is undertaken in a considered and concentrated manner. Keeping industry confined to one location will allow appropriate infrastructure to be constructed fully and effectively. This will assist in attracting permanent staff to the area in preference to FIFO workers.

2.1.3 Federal Government Actions to support the Mineral Industry

There are a number of ways to assist growth in the mineral industry, such as:

- Federal Government investment in critical infrastructure to cope with resident demand, for example, improvements to health, education, transport, power and communication networks.
- Ensure a social responsibility focus is included in all agreements, policies and legislation pertaining to the Pilbara region.
- Ensure an environmental focus is included in all agreements, policies and legislation pertaining to the Pilbara region.
- Identifying how local communities will benefit by further development in the minerals industry.
- Incentives to develop second stage processing opportunities.

2.2 Energy Industry

2.2.1 Current Situation

The Pilbara services the offshore Carnarvon Basin, Australia's largest known oil and gas reserve that earned a record \$24.4 billion in 2012 (21% of WA's total mineral's and petroleum value), comprising of 51% LNG, 25% crude oil, 16% condensate, 6% natural gas and 2% LPG. Equating to 97% of WA's total petroleum production, the oil and gas extraction sector has seen in a 16% annual growth in revenue between 2009 and 2013.



Petroleum Exports - Total Value \$22.4 Billion Source: DMP and ABS

LNG from the Northwest Shelf Venture's (NWSV) project at Karratha has seen sales reach \$8.7 billion, with Australia's biggest resource initiative, the Gorgon Joint Venture LNG project being developed at an estimated cost of \$43 billion. A further \$26.2 billion of offshore committed projects are planned to be developed in the near future with petroleum exploration in WA reaching a record \$3.3 billion in 2012-13 (an increase of 59% on the previous year).

Lack of electricity infrastructure has led Pilbara based companies to install their own generation and transmission systems. A small number of these stand alone systems merged in 1985 to form the North West Interconnected System (NWIS) – a partial grid operated by Horizon Power. However, until investment is made into the physical infrastructure and all electricity generation brought into one system to facilitate the efficient use of transmission and generation activity, the cost to the Pilbara community is approximately \$700 million per annum – a significant barrier to economic development.

In addition, the Pilbara has been scoped for the development of sustainable energy and alternative fuels, particularly solar power and the creation of an algae biofuel industry. However, some opportunities (such as in the Algae industry) were lost due to the high cost of doing business and lack of infrastructure in the Pilbara.

2.2.2 Potential for Developing the Energy Industry

By 2018, global LNG trade is expected to be heavily dominated by Qatar and Australia, with a combined total of approximately 50% of the global market. This outcome would generate a very substantial pricing position for Australia for the life time of the product extraction.

Shale gas has recently been identified in the Pilbara region and this extraction offers a significant but finite income to the region.

Sustainable energy, however, is a sector that shows great promise, not only for the sustainable development of the region but in offering research opportunities on a global scale. Some examples of sustainable energy that are worthy of investigation for the Pilbara region include:

- Solar energy and Solar hydrogen production
- Hydropower
- Tidal energy
- Wind farms
- Hot rock geothermal energy
- Carbon sequestration
- Algae based fuels

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2.23 Federal Government Actions to support the Energy Industry

There are a number of ways to assist growth in the energy industry, such as:

- Incentives and intervention to expand the North West Interconnected System (NWIS) to achieve greater efficiencies and build infrastructure that has the capacity to cater for regional growth.
- Greater expenditure on infrastructure and amenities to attract skilled people to the region.
- Elimination of red tape
- Seed funding and incentives to develop new industries in this field
- Development of research centres (perhaps in association with universities)

2.3 Agricultural Industry

2.3.1 Current Situation

With a workforce around 50 and an economic output of under \$5 million agriculture is currently a minor contributor to the district's overall \$18 billion economy. The main activity is pastoralism with beef cattle. There is also a small fishing industry, which accounts for approximately 15 workers and an output of \$6 million.

The climate is not conducive to agriculture in a traditional sense. However, there is some potential specialist and technology-intensive applications that may be applied.

2.3.2 Potential for Developing the Agricultural Industry

Utilising the current agricultural and horticultural practices, the following sectors have potential for further growth:

- Beef boutique abattoir and chilling plant
- Diversification for pastoralists horticulture, tourism
- Development of crops known to grow in arid conditions (such as coconuts, mangos, tomatoes, pistachios, Moringa shrubs and so on)
- Aquaculture fish and shellfish
- Algae industry biomass can be used for stockfeed

The greatest potential is in the growing of fresh fruit and vegetables as the region currently relies heavily on items being trucked in from Perth at great expense. With an excess of available land, sun and seawater, arid agriculture is a prime industry sector for development. Combining desalination plants, solar energy and evaporative hedges, seawater based greenhouses (adapted to cater for cyclones) are a way to provide cheap, high-quality, pesticide-free vegetables that can be grown year-round in commercial quantities.



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2.3.1 Federal Government Actions to support the Agricultural Industry

There are a number of ways to assist growth in the agricultural industry, such as:

- Review of environmental policies and licensing for the Pilbara
- Changes to policies on water management/utilisation
- Policy changes to allow pastoralists to diversify their businesses
- Ensuring that commonwealth marine reserves are appropriately implemented to ensure the fishing industry remains viable (disproportional impacts reduced)
- Policy changes to ensure that the fishing industry can coexist with recreational fishing
- Tax incentives for new business development, particularly sustainable options
- Infrastructure improvements
- Improvements to access markets for export and local trade

2.4 Tourism Industry

2.4.1 Current Situation

As one of the world's last true wilderness areas, the Pilbara is home to beautifully rugged landscapes and boasts an aboriginal history dating back more than 40,000 years. There are many opportunities to increase tourism and the Shire of Roebourne are currently undertaking work to define the Shire's role in developing this sector.

Visitor numbers to Karratha and Roebourne Visitor Centres 2007/8 – 2011/12



Source: Shire of Roebourne (Sept 2013). Monthly Council Meeting - Visitor Centre Report

Advocacy: With the removal of Pilbara based officers by both Tourism WA and Australia's North West Tourism over the past 5 years, promotion of the region has been less than optimal.

Attractions: A number of iconic tourist attractions are identified in our district, including:

- Burrup Peninsula and Murujuga National Park
- Cossack and Roebourne heritage precincts
- Yaburara and Emma Withnell Heritage Trails
- Mt Herbert and Chichester Ranges
- The Dampier Archipelago

Karratha is also a major gateway to other world-class Pilbara tourism icons such as the Montebello Islands, Millstream National Park, Karijini National Park and the World Heritage Listed Ningaloo Reef.

Amenity: Improved infrastructure at regional rest stops and coastal tourism spots through partnerships with the Pilbara Regional Council has been a key focus, however there still needs to be more work undertaken to improve the amenities in the region.

Access:

- **By road** Many roads are unsealed which is attractive to adventure tourists seeking 4 wheel drive opportunities, but provides a limitation to other tourist groups. Fuel costs are also higher in the Pilbara which may provide a barrier to those on a budget.
- **By air** High fuel costs also have an impact on air travel, of which four domestic airlines operate from the Karratha Airport. In 2013 this airport saw 870,000 passengers pass through, making it the second busiest in WA and the 15th busiest in the country. The airport is currently being scoped for expansion into international flights.
- By boat Access is mainly via beaches, boat ramps and marinas (Dampier or Point Sampson). Construction of a new marina at Dampier has had progression hampered by high infrastructure costs. All other wharves within the Shire are privately owned and operated by the mining companies.
- By rail Currently privately owned by the mining companies for freight transfer only.

Accommodation: One of the leading barriers to tourism development is the lack of affordable accommodation options.

Activities: The Shire in collaboration with private industry undertake a large range of events and activities, including The Cossack Art Awards, The Red Earth Arts Festival and NAIDOC Week. In addition, a Visitor Information Centre in Karratha and in Roebourne are able to provide visitors with information on organised tours, self guided tours and other activities that may be of interest.

2.4.1 Potential for Developing the Tourism Industry

There are many opportunities for an expansion of the tourism sector, for example:

- Adventure tourism
- Industrial and business tourism
- Cultural tourism (such as Burrup rock art tours)
- Cruise ships
- Conference and events market

2.4.2 Federal Government Actions to support the Tourism Industry

For tourism to grow in the Pilbara, there needs to be:

- Improvements in the overall infrastructure and facilities to cater for a tourism industry
- Tourism Skills development
- Incentives to encourage small to medium tourism operations to develop and grow
- Increased support by federal agencies through the location of offices in the Pilbara. For example, customs, quarantine, federal police, immigration.
- Enhanced promotion and support for tourism small business services and grants

2.5 Defence Industry

One of the fundamental responsibilities of any Australian Government is to protect and defend the people of Australia against direct attack; to protect and enhance national security interests, while improving the stability and cohesion of our immediate neighbourhood.

2.5.1 Current Situation

The Pilbara's resource extraction and processing assets account for approximately one-sixth of the nation's gross domestic product. Facilities include numerous offshore platforms, landbased gas plants, ports, railway lines, roads and mineral handling infrastructure. These are some of the world's largest projects, yet they are remote and highly exposed with no military, aircraft or ships stationed permanently in the region to protect them.

Various training exercises are occasionally carried out in the Pilbara, engaging Australia's elite counterterrorist force, the Special Air Service Regiment, along with the Navy, Police and the Border Protection Command, to rehearse their response to threats against shipping and offshore oil and gas platforms. In addition, the Royal Australian Navy operate sea patrols throughout the North West Shelf over a 90 day period each year in an effort to provide visibility of a defence presence.

The Pilbara Regiment of the Australian Army Reserve form a limited defence presence in the region – one of three Regional Force Surveillance Units employed in Northern Australia. Their responsibilities cover 1.3 million square kilometres from Port Hedland to Carnarvon in WA, and from the coast to the Northern Territory border - approximately one-sixth of the total Australian land mass.

Government officials and business leaders have expressed their desire and agreement in establishing a stronger military presence in the Pilbara Region. Three substantial reports recently prepared on defence in the North West – a Defence Force Posture Review, a Defence Force White Paper and a Senate Committee Report – all agreed that a greater defence presence is required.

2.5.2 Potential for Developing the Defence Industry

Defence has the potential to play a significant role in keeping WA's economy the strongest in the country by enabling the industry to:

- Assist with economic growth of the region, particularly in social infrastructure
- Defend against terrorist attacks that could cripple the nation's economy
- Ease security concerns raised by American investors
- Defend against invaders
- Detect asylum seekers
- Respond to humanitarian requests
- Assist in emergency management ie. tsunami, flooding and cyclone
- Protect the increasingly valuable resources industry
- Reassess the strategic power of nations such as China and India, along with the economic strengths of Japan and Korea, and the general growth of the ASEAN economies.

Development of the defence industry would allow the Federal Government a one-off opportunity to co-ordinate with State Government investment in infrastructure.

2.5.3 Federal Government Actions to support the Defence Industry

There are a number of ways to assist growth in the defence industry, such as:

- Relocation of defence force personnel and equipment to the Pilbara
- Extensive development of social and economic infrastructure

- Status of the Pilbara must be elevated in the considerations of security and disaster response stakeholders.
- Deterring and protecting potential target acquisitions such as energy centres, must remain at the forefront of Australia's defence and security plans.

2.6 Other Industries

2.6.1 Current Situation

Currently mining and construction generate the bulk of money flowing through the Pilbara, a reliance that has a significant impact when these sectors slow. Diversification of industry is essential to creating a healthy city, growing the infrastructure and the service based industries required to attract population growth. The Pilbara region is in dire need of the stability and a stronger sense of community that goes with such diversification.

Some diversification of industry can be already be seen in the Pilbara. For example, Karratha, as the central hub for the region, has already started diversifying into retail, accommodation, food, professional, scientific & technical, IT, transport, healthcare and arts/recreation.

Potential residents have expectations around availability of goods and services when they make a decision to settle permanently in a specific location. Appendix B indicates some of the industry gaps identified by local residents.

2.6.2 Potential for Developing Other Industries

With no shortage of land in the Pilbara, some of the most obvious industry sectors to develop include:

- Aquaculture
- Emergency management technologies (including Cyclone research)
- Sustainable energy
- Sustainable waste sustainable uses of current industry by-products and recycling
- Education
- Medical and health research
- Advanced equipment design and manufacturing
- Spatial intelligence and public innovations

2.6.3 Federal Government Actions to support Other Industries

There are a number of ways to assist the Pilbara to create industry diversification, such as:

- Investment and development of critical infrastructure
- Special Economic Zones (SEZ) to incentivise new and emerging industries.
- Policies to drive down the high cost of living and the high cost of doing business in the Pilbara
- Investment into new public innovations that can be showcased on a global scale.
- Policies conducive to developing emerging industries, for example, emergency management policies that clearly outline response priorities and how organisations are to work together under a comprehensive plan. This will provide a perception of safety for potential residents and act as a key driver for growth in this industry.

3. ENHANCING TRADE AND INVESTMENT WITH ASIA PACIFIC

The transformation of the Asian Region into the economic powerhouse of the world is gathering pace. This ascent has already changed the Australian economy, society and strategic environment. Within a few years, Asia will not only be the world's larger producer of goods and services, it will also be the world's largest consumer of them.

Pilbara businesses, exporters and the community have engaged regularly with the Asian region – the minerals and energy sector being the most visible. With such a strong record of engagement, these links have enabled the Pilbara to develop economic, social and cultural awareness and experience with many Asian countries. To build on these relationships, the Shire of Roebourne are currently in the process of establishing a Sister City Relationship designed to build closer economic relations, while allowing both communities to exchange ideas, gain an international perspective and increase global understandings.

The Pilbara region requires clear policy guidance from the Federal Government as to what can be sold and invested in so that opportunities can be packaged and presented to potential investors. For example, many Asian companies are interested in infrastructure development such as an airport expansion, but want to package it with a new hotel nearby. Additional release of land is often required to cater for this extra investment opportunity.

In addition, many Asian companies want to bring some of their own staff to manage or oversee the investment but can be restricted by visa regulations such as the 457 Visa for Temporary Skilled Workers.

A series of policies, programs, initiatives and incentives are required to assist Northern Australia, and in particular the Pilbara, to:

- Establish an open, adaptable and resilient economy through the reform and investment across the five pillars of productivity skills and education, innovation, infrastructure, tax reform and regulatory reform.
- Invest in developing creativity and design-based thinking within industry sectors.
- Improve the visibility and accessibility to programs designed to assist local Pilbara firms to be highly innovative and competitive.
- Encourage trade, investment and partnerships with the Pilbara region through openness and integration.
- Ensure stability and sustainable security of the Asian region through the building of trust, co-operation and participation in regional developments.
- Create opportunities for Asian market connections and the development of Asian literacy to build closer partnerships through the understanding of cultures and languages.
- Establishment of innovation zones and business packaging opportunities.

4. ESTABLISHING A CONDUCIVE REGULATORY, TAXATION AND LEGISLATIVE ENVIRONMENT

It has been well documented that small and medium-sized enterprises (SMEs) can play a catalytic role in driving economic development, particularly if diversification of industry is the aim. However without a conducive regulatory, tax and legislative environment, this contribution becomes difficult and at times, impossible.

4.1 Regulatory and Legislative Environment

While it can be difficult to isolate specific business types in policy structures, there are some regulatory and legislative aspects that with change, could contribute to a more conducive environment to encourage industry diversification in the Pilbara:

- Review existing laws and regulations with careful mapping undertaken so as to identify appropriate reforms that will result in the stimulation of growth.
- Improve the co-ordination of 'Pilbara plans' being written and begin implementing the recommendations.
- Create clear delineation of roles and responsibilities between all tiers of government, so as to alleviate relationship strain and unfair cost pressures on local government.
- Improve communication through two-way engagement with local government, particularly in the early stages of major projects and policy initiatives that affect the region.
- Reduce red tape and unnecessary complexity, especially regarding regulatory frameworks.
- Improve access, applicability, support and promotion of economic and business development programs.
- Improve investment into amenities such as health, education and overall living costs.
- Accelerate bilateral free trade agreements.
- Establish affordable financing options to support critical infrastructure such as:
 - Investment by superannuation companies through packaging good quality investments such as Airports (high ROI) with social investments such as library (low ROI)
 - Infrastructure bond join with other councils to fund packaged projects
 - Pilbara bond scheme projects specific to the region
- Consideration and implementation of the Strong Foundations for Sustainable Local Infrastructure Report (2012) recommendations (refer to Appendix G):
 - Information portal for grants programs
 - Tax increment financing
 - National financing authority
 - Capacity building programs
 - o Review of asset and financial management practices
 - Local government impact statements
 - Local Government roles and responsibilities
 - National Advisory body for local infrastructure procurement
 - o Major project procurement guidance
 - o Trial project for private investment in local infrastructure

4.2 Taxation Environment

Taxation reform should be a high priority to encourage regional population growth and incentivise taxpayers working in remote and harsh environments (refer to appendix D and E). The current Australian tax zone system has been in place since 1945 and was implemented to provide tax relief to residents where isolation, uncongenial climate and high cost of living impacted on population growth. The current rebate values have not been adjusted for many years and have declined significantly in real value. In addition, the current system is targeted at individual taxpayers and offers no taxation relief to corporate taxpayers. Analysis of other countries would highlight alternatives for consideration such as empowerment zones (USA), enterprise zones (UK) and rural development areas (USA).

- Zone based tax rebates many people are claiming who do not live in the Pilbara.
- Zone rebates should be indexed so they maintain real value over time.
- Restoring the real value of zone tax rebates would encourage more families to make a permanent commitment to regional living. It would also assist small to medium enterprises to better compete with city based businesses.
- Review and alter Fringe Benefits Tax and the Living Away from Home Allowance (LAHA) to encourage reductions in FIFO numbers and provide incentives for workers to become part of the local community.
- Review both personal and business tax incentives and other mechanisms to encourage regional living.

5. IMPEDIMENTS TO GROWTH

One of the biggest barriers to growth is the ability to undertake business in the Pilbara. Australia is ranked number 11 in the world for ease of doing business (Refer to Appendix J), behind New Zealand who rank number 3 and the USA who rank number 4. This is a significant issue for potential investors, particularly when added to the following limitations and barriers to development:

- **Disproportionate small business sector** Currently do not have the full range of services that would normally be expected in a community of this size.
- *High development costs* (The Karratha factor 50% +) due to skilled labour shortages, cyclone rating, transportation costs for materials, high costs of contractors, expensive base materials
- Investment risks for all levels of public and private sectors. Banking institutions viewing the region as mono-economy, some requiring 20% deposit for residential property loans.
- "*Pilbara time*" the additional time taken to plan, seek approvals and implement projects, potential disruptions due to cyclonic activity, mobilise workers, transport materials.
- Infrastructure capacity constraints power, water and waste water which impact on timely release of land for development.
- *Housing affordability* still 41.5% more expensive than Perth (Regional Prices Index 2013). However down from 102% in 2011.

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- Ability to attract and retain skilled workers This is particularly impacting on the government, non-government and small business sectors as workers from these sectors are drawn into the resource sector plus skilled operator shortages in oil, gas and minerals extraction due to competing projects.
- **Cost of Living** Karratha is the second most expensive town in regional WA to live and work, 18.8% higher than Perth (2013 Regional Prices Index) with Port Hedland and Newman the first and third most expensive respectively. This makes the Pilbara the least affordable region in WA.
- *Tyranny of distance* dislocation from markets and major locations
- Differing views on population trends add complexity to forward planning and the resulting demands for goods and services, infrastructure provision.

6. CONDITIONS FOR PRIVATE INVESTMENT AND INNOVATION

Despite its seeming isolation, the Pilbara could potentially become one of Australia's fastest growing regions over the next 50–100 years. However, to do so, the Pilbara needs to pin its future success on being a smart, connected region. A region that can support its growth across social, environmental and economic values.

The Australian Government has a role in generating both private investment and innovation. Private resources cannot be mobilised without a public lever. Smart public financing can encourage local and international private investments, while fostering collaboration between investors, companies and the public sector. For example, digital applications and information technology are already being leveraged by companies in the natural resources industry to transform their operations and implement world-first operating models in the Pilbara.

The Pilbara has the chance to leapfrog into the future by doing things differently - to leverage new business models and the unique assets of the region; and by setting audacious goals.

Some ideas for encouraging private investment and innovation include:

- An innovation centre Funded by both public and private sectors, this centre would solicit, receive and shape new ideas into actions and projects that would benefit the Pilbara.
- A public investment bank Aimed at raising and managing funds from government, industry and community sectors, for investment in key infrastructure projects. Bringing together disparate and uncoordinated funding sources (such as crowd sourcing and tax breaks), industry is encouraged to keep banking on-shore; and is focused on providing a medium-term return for investors.
- An online business incubator By linking products, producers and services together, this concept provides small and micro businesses the infrastructure required get their products to market, potentially reducing overheads in Pilbara that are restrictive to setting up a new business.
- *Physical and online innovation hubs* for development of both business and community initiatives.
- **Centres of excellence** creating partnerships with industry for research and development

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- **Public Infrastructure** Embed digitisation into the provisioning of new physical infrastructure including buildings, roads, energy, water networks, community centres, hospitals and schools.
- **Public Private Partnerships** Section 3.59 of the *Local Government Act 1995* (The Act), requires change to allow local governments in Western Australia the opportunity to participate in commercial ventures. This would assist the Council to:
 - Build closer relationships with the private and not-for-profit sectors.
 - Create sustainable new business opportunities that encourage investment in the region.
 - Further develop industries identified as key economic drivers for the region.
 - o Increase efficiencies, achieve cost-savings and generate new income streams.

Increasing private investment and innovation is essential to increasing the vitality and workforce participation in the Pilbara region. Appropriate governance and collaboration models are therefore required to:

- Have an awareness of the need for innovation as a key driver for better outcomes.
- Develop a co-ordinated approach which includes consultation, negotiation, cooperation and agreement across and within Federal, State and Local Government departments and incorporating the private sector and community.
- Create policies and programs that have a long term focus, inspire curiosity and involve a degree of risk aimed at challenging the status quo.
- Ensure policy development, program design and service delivery is better targeted, achieves greater efficiencies and is responsive to community needs.
- Increase the availability to seed funding and other initiatives designed to stimulate small business growth.
- Invest in critical infrastructure such as digital services to ensure the Pilbara communities are appropriately connected for business development.
- Implementation of incentives such as tax credits for innovation
- Project specific private funding can be encouraged by the Australian Government by ensuring sufficient scale of projects with clear identification of potential commercial returns.

Appendix G outlines further ways that private sector investment can be encouraged.

7. CRITICAL ECONOMIC INFRASTRUCTURE TO SUPPORT LT GROWTH

"If the workforce is stabilised and living costs in the Pilbara are lowered by investing in economic and social infrastructure, productivity will rise, labour turnover will dramatically reduce, and the cost of economic and social services will decrease"

Source: The Pilbara Plan (2012)

The resources sector provides a strong economic base for the Pilbara region, however, its rapid growth has left the local infrastructure struggling to keep pace. In response, the Western Australian Government initiated the 'Pilbara Cities: Karratha, City of the North Plan', a framework for transformation in which the re-vitalisation and development of Karratha was identified as a critical component to the region's growth.

In addition, the 'Royalties for Regions' program has enabled dramatic increases in public amenities and infrastructure. But the reality is that living standards, amenities infrastructure and services are still well below those enjoyed by other regional centres of similar size.

Investment in the projects listed below, while having substantial benefits in their own right, will stimulate further private investment:

• Communications

- A comprehensive digital telecommunications network with enhanced mobile phone network coverage along the transport corridors between the settlements in the Pilbara – essential for quality of life and safety
- Improved priority for connection to the NBN given the economic importance of the region.
- Utilities
 - Expansion of the North West Interconnected System (NWIS) to link all electricity generation and transmission with a Pilbara-wide grid to create efficiencies and redundancy during adverse weather events.
 - Water source/ conveyance investigations and construction for the Pilbara water supply scheme (Dampier, Karratha, Roebourne, Wickham, Point Sampson, and Cape Lambert);
 - Renewable energy initiatives to assist the Pilbara in becoming sustainably selfsufficient.

• Transport and Logistics

- Consideration of inclusion of the North-West Coastal Highway from Perth to Karratha in the National Network given the huge increase in logistics and transportation tasks associated with oil and gas developments and additional iron ore projects in the West Pilbara.
- Continue to fund the improvement of the existing National Highway within the Pilbara to ensure adequate safety and capability for transportation and logistics.
- Sealing of the Tom Price to Karratha Road to open up the West Pilbara for additional resource projects, tourism and improved inter-regional connectivity for Pilbara Communities.
- Upgrade of port facilities
- Land
 - Support for development of major new strategic industrial areas (such as the proposed Anketell Port)

Population

- Government policy is required to ensure centralisation of population nodes in existing towns to maximise expenditure on infrastructure and avoid the duplication of development caused by creating new towns. For example, there is an argument that the gas plant being constructed near Onslow would have better been located near Karratha which is already the major regional centre with far less infrastructure constraints, the major regional airport, ample housing, land, social and community infrastructure.
- Redefine the use of FIFO camps, ensuring that they are only utilised for temporary construction projects and that the operational staff are encouraged to form a permanent population in the region.

• Industry

- The Australian Government to support studies into Agriculture and economic diversification in the Pilbara via the Economic Diversification Package.
- Sustainability and diversification of industry sectors (including not-for-profit)
- o Public and private sector investment driving economic growth
- Reduction in benefits for FIFO workers to encourage regional living (current policies result in FIFO workers earning up to \$8,000 per year more than local residents).

8. CRITICAL SOCIAL INFRASTRUCTURE TO SUPPORT LT GROWTH

It has been argued that public investment in social infrastructure (schools, hospitals, etc.) has a major bearing on the community's wellbeing and can be seen as a sign of government commitment to a region, which, in turn, stimulates private infrastructure investment. Despite, or perhaps in part as a result, of the extraordinary strength and dominance of the mining industry many socio economic indicators for the Pilbara rate considerably lower than other Northern regions.

Investment in the projects listed below, while having substantial benefits in their own right, will stimulate further private investment.

• Affordable Housing –

- Ensure that National Housing Schemes such as the National Rental Affordability Scheme have applicable and sustainable models that work in Northern Australia.
- Undertake research to Identify best practice models and programs related to Indigenous housing issues with subsequent development of appropriate strategies and programs.
- Develop multi-tiered affordable quality housing program for non-mining /resource industry employees that takes into account all income levels, and the various makeups of households
- Health
 - Develop a more transparent and efficient funding model that adequately supports the increasing level of activity and upward cost pressures experienced by the Royal Flying Doctor Service and continues support of initiatives such as the Rural Women's General Practitioner Service and rural mental health service.
 - 'Rescue package' upgrades for the region's hospitals, increased focus on the provision of community and primary health services; specialist, rehabilitation and allied health services as well as the expansion of Indigenous Health Services.
 - Investment in the prevention of obesity and diabetes.

- Establishment of a regional cancer treatment centre will generate savings in the Patient Assisted Travel Scheme.
- Focus on indigenous health education (strong culture of drug and alcohol use)
- Education
 - Re-initiate the Australian Government's Education Investment Fund (EIF) with a view to supporting the development of significant infrastructure in higher education, research and vocational education and training institutions in Northern Australia.
 - Expansion of Initiatives such as the Language, Literacy and Numeracy Programme (LLNP) and Workplace English Language and Literacy (WELL) project to improve English language, reading and literacy levels for people who are experiencing difficulty entering the job market due to low levels of language, literacy and/or numeracy.
 - Increase opportunities for secondary and post-compulsory education.
 - Increase apprenticeship training places in the region and establishment of a Pilbara Mining Academy.
 - General expansion and upgrade of existing facilities to include university level education.
 - Develop new training programs to improve the local skills base and resident workforce.
- Indigenous relations
 - Ensure that increased opportunities are provided for Aboriginal and Torres Strait Islander people through the engagement of Pilbara based indigenous employment service providers under the Indigenous Employment Program.
 - With a high population of aboriginal people, many living in communities, clarification on Local Government responsibilities regarding waste, power and so on within aboriginal communities is essential.

• Family and Children Services

- That the Commonwealth Department of Social Services review services and benefits and payments provided to families and children in Northern Australia and adjust to take into consideration issues of remoteness and cost of living e.g.
 - That tax free thresholds be adjusted upwards via the Household Assistance Package
 - ABSTUDY living allowances
- 0
- Community Safety
 - o Initiatives to reduce crime and its impact on communities.
 - Review institutional and legal provisions regarding cyclones and recovery processes, such as the reduction of incentives for initiatives that are located in areas of known risk, and incorporating the impact of climate change on emergency management practices.
 - Improvements in cyclone forecasting are required to mitigate the impact on burgeoning off-shore oil and gas developments (refer to appendix H).
 - o Improve cyclone response capability and increase community awareness
 - Establish a cooperative research centre (CRC) focusing on cyclone risk management

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• Workforce Participation –

- Continue to support the implementation of the following recommendations of the "Addressing the Skills and Workforce Needs of the Resources Sector Report 2013" namely:
 - Recommendation 5.2 Sustainable Job Outcomes for local people in the Pilbara. In partnership with the Minerals Council of Australia (MCA) continue to support the Pilbara Regional Coordinator for Indigenous Employment and Enterprise Development in guiding long-term action, bringing together stakeholders at the local level to identify and progress employment and enterprise development opportunities for Indigenous Australians in mining and related industries.
 - Recommendation 5.6 fund brokerage roles in the Pilbara to forge stronger links between employers, training providers and employment services providers.
 - Recommendation 5.7 Better integrate Indigenous businesses into major projects in Western Australia. That the Australian Government, in conjunction with the Western Australian Government, explore the possibility of expanding the capacity of brokers and mentors, and better use existing business support programs in the Pilbara (as a priority area) to work with existing small-to-medium sized Indigenous contracting businesses and resources companies to better integrate Indigenous businesses into the supply chain for major projects. If successful this model could later be replicated in other regions.
 - Recommendation 6.3 Fund Trade Training Centres Continue support of the Pilbara TTC (WA) which has partnership arrangements with BHP Billiton Iron Ore, Rio Tinto and Woodside who are all contributing funding to support the TTC's operations.
- The Australian Government to provide planning and funding support to assist in implementing the Pilbara Workforce Development Plan 2013.
- Aging populations
 - Australian Government to invest in extra support and care services for older Australians in Northern Australia – such as cleaning, meals, nursing care and transport as Pilbara communities in particular tend to have a low number of Senior Australian's due to the lack of aged care service provision.
- Immigration
 - The Australian Government should continue to work closely with local governments and regional authorities in Northern Australia to provide regional migration programs that support regional development and help supply the skill needs of regional employers.
 - In particular, the location of a Regional Outreach Officer in the Pilbara to assist employers and regional authorities to determine the most appropriate regional migration solution should be considered as Cairns is the only other Northern Australian city to have such a service.

9. CONCLUSION

It is well understood that the Pilbara is a region of vital national significance and its contribution to the overall Australian economy cannot be underestimated. Despite possible market volatilities and new competing sources of commodities, the minerals and energy sector will continue to expand at an unprecedented pace. Coinciding with this, is increased pressure for adequate social and economic infrastructure, highly skilled staff and diversification of industry.

Contrary to the government's projections, forecast population growth and a more complex demographic character are far from guaranteed. Current social, economic and political deficiencies provide obvious disincentives to population growth, Significant barriers can be seen in housing availability and affordability, uncoordinated planning, recovery from extreme weather, land restrictions, and the continued negative impact of FIFO workers on the local community.

Weaknesses of the region have been identified in critical infrastructure for health, education and the basic provision of services, each failing to meet community expectations. While high living costs and high costs to do business impact significantly on whether a new or potential resident will make the Pilbara their permanent home.

Despite these challenges, the Shire of Roebourne possesses strengths in the well-established partnerships with global companies in the resources sector, a young population with a strong entrepreneurial spirit, high disposable incomes and family friendly living. The inspirational beauty of the rugged landscape is also a drawcard for many, offering both work and recreational opportunities. It is these strengths that form the foundation for the many opportunities available to the Pilbara region.

Indications show that unless major intervention occurs quickly, the value delivered by the Pilbara could be compromised through the inaction of underinvesting in the region. Concern has been expressed in a large number of studies with input from the resource sector and all levels of Government that the current practises are not maintainable as they are not developing sustainable local communities.

The Pilbara Cities: Karratha, City of the North Plan provides a framework to establishing sustainable communities in the North West of Australia, however Federal Government assistance is urgently required to strengthen and deliver a strategic long term sustainable focus to the region through incentives, tax reform and legislative/regulatory change. These drivers of change are essential to the implementation of social and economic infrastructure, the creation of industry diversification, greater use of available land, the encouragement of research and investment, and the building of closer relations with Asia.

The time is now for creating strong resilient communities for the future and forever changing the perception of 'mining boom towns' to a sustainable region that is 'open for business'.

9.1 Summary of Actions to Develop Northern Australia

Actions	Short Term	Medium Term	Long Term
Action 1 Urgent investment in critical social and economic infrastructure:			
 Elevate priority of region for implementation of the National Broadband Network. Improved Aged Care and Family support. Support for indigenous business development and workforce development. Sustainable job outcomes for Pilbara people. Further development of trade training centres (TTCs). Adequately fund RFDS. Support for North West Interconnected System (NWIS). 			
• Invest in higher education, research and vocational education and training institutions in Northern Australia			
Action 2 Reduction of red tape.			
Action 3 Established a Conducive Regulatory, Taxation and Legislative Environment:			
 Prioritise taxation reform to encourage regional population growth and incentivise taxpayers working in remote and harsh environments. Ensure a social responsibility focus is included in all agreements, policies and legislation pertaining to the Pilbara region. Ensure an environmental focus is included in all agreements, policies and legislation pertaining to the Pilbara region. 			
Action 5 Seed funding for research and development:			
 Establish a cooperative research centre (CRC) focusing on cyclone risk management. Support research into economic diversity for the region with a focus on Agribusiness and tourism. 			
Action 6 Coordinated approach and two way communication between all tiers			
 of government. Create clear delineation of roles and responsibilities between all tiers of government, so as to alleviate relationship strain and unfair cost pressures on local government. Improve communication through two-way engagement with local government, particularly in the early stages of major projects and policy initiatives that affect the region. 			
Action 7 Enhanced trade and investment with Asia-Pacific			
 Create opportunities for Asian market connections and the development of Asian literacy to build closer partnerships through the understanding of cultures and languages. 			
Action 8 Enhanced presence of Australian Government Agencies: Customs, Quarantine, Federal Police, Immigration (Regional Outreach Officer), Defence			

Appendix A: Pilbara Employment by Industry Sector.

Industry sector	2006 Persons	2011 Persons	2011 % distribution	2006–11 % growth
Mining	5754	11 431	35.3%	98.7%
Construction	2087	5303	16.4%	154.1%
Accommodation and food services	990	1637	5.1%	65.4%
Transport, postal and warehousing	916	1694	5.2%	84.9%
Professional, scientific and technical services	409	916	2.8%	124.0%
Manufacturing	835	1111	3.4%	33.1%
Education and training	1359	1544	4.8%	13.6%
Health care and social assistance	1293	1358	4.2%	5.0%
Retail trade	1416	1442	4.5%	1.8%
Public administration and safety	1124	1300	4.0%	15.7%
Administrative and support services	716	1052	3.3%	46.9%
Other services	568	938	2.9%	65.1%
Inadequately described/Not stated	589	938	2.9%	59.3%
Rental, hiring and real estate services	415	588	1.8%	41.7%
Wholesale trade	397	512	1.6%	29.0%
Electricity, gas, water and waste services	203	350	1.1%	72.4%
Agriculture, forestry and fishing	169	162	0.5%	-4.1%
Financial and insurance services	141	145	0.4%	2.8%
Information media and telecommunications	83	90	0.3%	8.4%
Arts and recreation services	76	108	0.3%	42.1%
Total	19 531	32 368	100.0%	65.7%

Employment by industry sector, Pilbara, between 2006 and 2011

Source: Australian Bureau of Statistics 2011c, Population Census (based on place of usual residence).

Appendix B: Gaps and Needs Analysis for the West Pilbara

Sector	At least 1 needed	2-5 needed	5+ needed
Accommodation	backpackers	motels, retirement villages, guest houses, hotels (esp. outside Karratha), chalets	resorts, caravan parks, bed and breakfasts
Food	Fish and chip shop, cold storage, healthy food, delicatessen	upmarket pubs/taverns, cafes/coffee shops	restaurants, fast food/take away outlets
Construction		carpenters, plasterers, scaffolding services, tile layers, stonemasons, boiler makers, hydraulics, boat maintenance	building contractors, fencing contractors, electricians, plumbers, earthmoving contractors, handymen
Financial and insurance services	mortgage brokers, bankruptcy trustee, finance broker, stockbroker, liquidation & insolvency services	investment services providers, insurance providers	accountants & auditors, financial planners
Real estate services	n/a	real estate agents, valuers, property management, conveyancing services	settlement agents
Hiring services	boat hire, formal wear hire	Party hire	n/a
Trades		panel beaters, painters/decorators, diesel fitters, boilermakers, hydraulics, marine air con, boat maintenance	mechanics, hairdressers
Manufacturing	n/a	n/a	n/a
Other services	home cleaning providers, dry cleaner, window cleaner, dressmakers, event managers, shoe repair/bootmaker, boat wash, watch/clock repairs	pest controllers, childcare centres, commercial cleaning contractors, laundries, beauty salons, caterers, car washes, massage therapists, embroiders, gardeners, celebrants, travel agents, waste disposal services, wedding planners, cremation services, funeral directors, upholsterers, furmiture designers	landscapers, carpet cleaners, tree fellers
Entertainment	skydiving, golf courses, museum, nightclub, cinema, bowling alley, library, art gallery	Amusement centres, dance tutors, children entertainment, boat charters	n/a
Health	fitness centres, dietician, occupational therapist, disabled services, obstetrician, paediatrician, aged care, palliative care	medical centres, naturopaths, optometrists, counsellor/psychologists, podiatrists, acupuncturists, chiropractors, nursing homes, refuges (men/women/youth), dentists, specialist medical	Physiotherapists
Education	TAFE (mining and non- mining), university	n/a	n/a
Professional services	interior designer	town planners, photographers, environmental consultants, architect/building designers, marketing/advertising, veterinarian, graphic designers	Lawyers
Transport	Couriers, International airport, taxis, public transport (bus)	limousine providers, petrol stations	n/a
Wholesale/retail	music store, nursery, Chemist (longer opening times), second hand shop, ice works	florists, glass merchants/glaziers, air- conditioning, car yards, carpet stores, hardware stores, computer stores, art/craft stores, jewellers, liquor stores, bakeries, bathroom equipment, camping equipment	Specialist retail fashion (mens, womens, childrens), solar energy providers, flooring, brick paving, shoe stores

Source: ACIL Tasman (April 2012). Business Map, Gap and Supply Chain Research Project

Commissioned by the Karratha Districts Chamber of Commerce & Industry, Pilbara Development Commission and the Shire of Roebourne.

Appendix C: Sustainable Local Infrastructure Summary of recommendations for connecting communities, projects, finance & funds

An overview of local infrastructure

- Although the experience varies according to location and community demands, Australian councils generally have responsibility for a homogenous stock of assets, including roads, land and buildings.
- The value of local infrastructure has grown at a steady pace over the last decade. However, most councils invest a relatively small amount per annum in infrastructure and this has implications for the development of in-house capability and skills.
- The infrastructure development and maintenance task is dominated by local roads networks. Non-road projects can be substantial but at the individual asset level tend to be once-off rather than regularly procured.

Funding sources and their limitations

- There are core sources of revenue which all Australian councils are able to access. These include rates and taxes, sales of goods and services, and government grants. The relative contribution of the different income streams varies considerably from council to council.
- While there is some scope for the local government sector to increase its core sources of revenue, there are also a number of limitations which prevent individual councils from doing so.
- In the absence of extensive reform of the overall funding structure for local government, the sector needs to ensure it is best placed to make the most of the funds it currently receives.

Furthermore, councils need to look towards innovative funding, procurement and financing solutions without which their ability to accelerate new investment in infrastructure will continue to be limited.

Recommendation 1: Information portal for grants programs

The Australian Government should develop a portal to bring together information and application material relating to local government grants programs in a single location.

Borrowing for infrastructure investment

- There is significant capacity within the local government sector to optimise its level of borrowing. However, this is currently held back by the "fear of debt" and the absence of a structured local government debt product suitable for institutional investors.
- Centralised financing, where available on a state basis, currently provides the benefit of low finance costs and a government guarantee. Centralising financing on a national level would not only enhance these benefits, but is also likely to be an essential prerequisite for the creation of financial products to channel institutional investment into local government infrastructure.
- There is a role for the Australian Government in working with the states and territories to investigate the feasibility of establishing a national financing authority for local government to bridge the gap between institutional investors and Australian councils.
- Furthermore, the Australian Government can provide assistance in creating sustainable revenue streams which form a direct link between those who benefit from new investments and those who pay for them. Tax Increment Financing, whereby councils leverage future rates revenues to borrow for infrastructure investment, represents one such revenue stream.

Recommendation 2: Tax Increment Financing

The Australian Government should work with the states and territories to investigate the legislative changes that would be required to enable councils to introduce Tax Increment Financing.

Recommendation 3: National financing authority

The Australian Government should work with the states and territories to investigate the feasibility of establishing a national financing authority to aggregate local government borrowing and facilitate the creation of debt products for private investors.

Prioritising local infrastructure investments

The Nationally Consistent Frameworks for local government asset and financial management
 - and associated programs such as the Local Government Reform Fund - have succeeded in

creating momentum for improvement and a good return on the investment in capability building. However, current capacity varies widely and there is a clear need to sustain support.

- Role definition is a problem and can create cost pressures for local government and strains on the relationship between tiers of government.
- There is insufficient engagement with local government during the early stages of significant projects or policy initiatives undertaken by federal, state and territory departments and agencies. This creates an added level of complexity for local government prioritisation and planning processes.

Recommendation 4: Capability building programs

Programs of targeted training and capability building in asset and financial management should be extended.

Recommendation 5: Review of asset and financial management practices

Asset and financial management reform initiatives should be supplemented by periodic independent reviews of the implementation of the Nationally Consistent Frameworks.

Recommendation 6: Local government impact statements

Federal, state and territory governments should commit to completing local government impact statements as part of the business cases prepared to support new policy proposals and projects, where there is likely to be a direct cost impact upon local government.

Recommendation 7: Local government roles and responsibilities

All tiers of government should commit to building on the intent of the Inter-Governmental Agreement 2006 by outlining clear steps to achieving better clarity of the roles and responsibilities of each tier of government. In particular:

- State, territory and local governments should cooperatively review the asset registers of local governments to ensure that, for each asset class, the boundaries of responsibility are unambiguous and that an appropriate and transparent process to transfer responsibility between governments is in place.
- As part of its community engagement, local government should present its forecast long-term capacity to fund the role it is proposing, with specific reference to the capacity to sustain defined levels of service for existing and proposed assets, services and projects.

Creating value through the procurement process

- Despite some tentative moves by local government to explore procurement models involving private finance or risk allocation, the sector has not given enough consideration to methods of procurement outside the traditional approach.
- Without investigating the full spectrum of infrastructure procurement options available, the ability of the local government sector to accelerate new investment will continue to be constrained by limited access to capital.
- Councils should consider achieving procurement efficiencies through alternative delivery models, in particular those that involve a degree of project and financing risk transfer to private sector partners. There is currently an information gap in this area.
- The lack of engagement by private investors in local government infrastructure projects is driven primarily by the absence of projects of sufficient scale within the sector. Other barriers include the lack of a clear pipeline, the absence of commercial returns and/or tradeable products for investors, and concerns around the local government sector's internal capability.
- The Australian Government has a role in generating private finance for specific projects by supporting a trial project with the aim of developing a replicable market and a pipeline of future projects.

Recommendation 8: National advisory body for local infrastructure procurement

The Australian Government should work with the states and territories to establish a national body to provide skills and oversight of local government infrastructure. Its role would include capability building and the development of policy, guidelines and other assistance.

Recommendation 9: Major project procurement guidance

Major project procurement guidance should be developed and issued to local government to promote awareness of the spectrum of alternative procurement models for infrastructure delivery.

Recommendation 10: Trial project for private investment in local infrastructure

The Australian Government should identify an opportunity for a suitable local or regional infrastructure project whereby a market can be "created", and establish a collaborative group of stakeholders to take the project forward. A "waste to energy" project may be a good candidate.

Regional capacity and attraction

- The benefits of regional planning and prioritisation have long been recognised by all tiers of government, which is reflected in the large number of regional alliances and collaborations which exist today. The benefits include the prevention of duplication, better interface management and inter-government coordination.
- Improvements to the consistency and coordination of the existing regional frameworks will help regions achieve their full potential.
- Better alignment of regional structures, including voluntary alliances, could improve buy-in by member councils. In particular, this could result in a smoother application process for grants, where grant funding is available on a regional basis.
- In order to make the most of the potential of regional infrastructure planning, all tiers of government need to work together to align the different regional frameworks which currently exist in parallel. The Australian Government should collaborate with state, territory and local governments to review the most appropriate way to achieve this.

Recommendation 11: Rationalisation of existing regional structures

All tiers of government should work together to rationalise and align the regional structures which currently exist.

Alternative ownership structures for community assets

- Certain local government assets may be better suited to alternative ownership structures, including corporatisation or privatisation. Not only can this provide revenue for local government, but transferring the management of assets to corporate entities can provide access to new skills, asset and risk management processes, and independent strategic planning.
- The benefits of regional planning and prioritisation could be far greater if regional structures had the ability to move beyond advocacy and support towards ownership of assets, and the delivery and financing of infrastructure investments.
- The benefits of regional delivery are likely to be greatest where they relate to network assets such as local roads. The regionalisation of local roads would make it possible to introduce competitive tendering for regional capital and maintenance programs, whereby multiple assets are bundled under a single outsourced contract.

Recommendation 12: Review of asset ownership

Local government bodies should review their infrastructure portfolios with a focus on identifying and testing the rationale for continued ownership.

Recommendation 13: Regional infrastructure delivery

The Australian Government should work with the states and territories to develop incentives that can be given to councils to create formal regional structures with responsibility for delivering and financing infrastructure investments relating to specific asset classes, with a particular emphasis on local roads.

Source: Ernst & Young (2011) Strong foundations for sustainable local infrastructure: Connecting communities, projects, finance and funds

Appendix D: Impact of FIFO

The area of taxation reform for Northern Australia is an area which if addressed would have immediate impact and benefit, particularly in relation to the 'Fly-In, Fly-Out' (FIFO) workers. FIFO practices are one of the most challenging issues facing the Pilbara and are at the centre of a range of critical social and economic factors. Left unresolved, these issues will strongly militate against the development of Pilbara cities and townships as sustainable, welcoming, attractive and vibrant places in which to reside, work and lead a fulfilling life. While FIFO is to an extent recognised as unavoidable in the current resources boom in Western Australia, its ongoing use, growth and expansion is in fact counter-intuitive to the regional development objectives of both the State and Australian Governments, and the cause of considerable financial and other pressures for the Local Governments affected, compromising the future sustainability of their respective communities.

AEC*group* have estimated that there were a total of 33,100 FIFO mining workers in the region in 2011-12. Had all these workers been local residents with the average expenditure pattern on goods and services, the local economy would have benefitted (both from the direct contributions and the flow on activity) from an additional:

- \$2,126 million in output
- \$1,087 in gross value add to the local economy
- \$709 million in wages and salaries

By comparison, the 33,100 FIFO workers, being paid the same amount and following the usual expenditure pattern of a FIFO worker in the region, the economic contribution to the Pilbara local economy is estimated to be:

- \$339 million output
- \$180 million in gross value add
- \$123 million in wages and salaries

On average, hiring a resident mining worker and not a FIFO mining worker in the Pilbara SD results in an estimated total (i.e. direct and indirect¹) net beneficial impact of;

- \$53,500 in economic output
- \$27,000 in gross value add (a measure of GRP)
- \$17,500 in incomes (wages and salaries)

Source: Pilbara Marketing and Advocacy Group (2011), Submission to Shaping the Future of Australia's North: The Pilbara as a Key Driver of Change

Pilbara Regional Council (2012) Submission to the Parliamentary Inquiry into the use of FIFO workforce practices in Regional Australia

¹ Indirect type 1 impacts (industry induced impacts) have been included in this assessment; however, type 2 impacts (consumption induced impacts) have been excluded due to the nature of the study.

Appendix E: Tax Issues with FIFO and Economic Zones

In the Pilbara Regionals Council submission to 2012 Parliamentary Inquiry into the use of FIFO workforce practices in Regional Australia, the following was stated:

The first of these shared issues is in respect to the application of various taxes, which encourage FIFO activities to the detriment of permanent based residents as workers. Currently taxation encourages companies to utilise FIFO workforces as all costs associated with the use of this workforce are largely tax deductable. If FIFO workers are housed in camp arrangements there are no FBT implications however, housing subsidies paid to a permanent resident workforce attract this tax. Further to this, to avoid FBT implications plus secure a 50% concession on rental costs, the companies can rent the house as opposed to purchasing it outright. This activity has a dual implication in some communities as this use of the commercial rental market to house FIFO workers drives the rental market upward.

As for the zone allowance the Pilbara Advocacy Group also endorses the following suggestion.

The second area of tax reform should be to the Taxation Zone Rebate (TZR) an income tax concession which recognises the disadvantages to residents in 'specific areas' of Australia. These 'specific areas' consist of two zones. Zone A includes nearly the entire continent above the 26th parallel and some offshore islands with the exception of approximately 50% of eastern Queensland.

Zone B which is deemed to be less remote includes the remainder of the continent except for highly populated areas. A resident is defined as a taxpayer who spends time in the Tax Zone Rebate zones, not necessarily continuous time. Entitlement to the rebate requires a combined residency period of 182 days minimum over 2 years. It presently allows large benefits in equal measure to FIFO workers and remote bona fide residents. It is recommended that for the purpose of Tax Zone Rebates the definition of resident be restricted to permanent residents residing continuously in an area and those eligible to be enrolled are enrolled at that address.

Source: Pilbara Regional Council (2012). Submission to the Parliamentary Inquiry into the use of FIFO workforce practices in Regional Australia

Appendix F: Cost of Doing Business in Australia - Global Rankings and Trends

AUSTRALIA		OECD high income		GNI per capita (US\$)	59,570
Ease of doing business (rank)	11	High Income		Population (m)	22.7
Starting a business (rank)	4	Registering property (rank)	40	Trading across borders (rank)	46
Procedures (number)	3	Procedures (number)	5	Documents to export (number)	5
Time (days)	2.5	Time (days)	4.5	Time to export (days)	9
Cost (% of income per capita)	0.7	Cost (% of property value)	5.0	Cost to export (US\$ per container)	1,150
Minimum capital (% of income per capita)	0.0			Documents to Import (number)	7
		Getting credit (rank)	3	Time to Import (days)	8
Dealing with construction permits (rank)	10	Strength of legal rights index (0-10)	10	Cost to import (US\$ per container)	1,170
Procedures (number)	11	Depth of credit information index (06)	5		
Time (days)	112	Public registry coverage (% of adults)	0.0	Enforcing contracts (rank)	14
Cost (% of income per capita)	13.3	Private bureau coverage (% of adults)	100.0	Procedures (number)	28
				Time (days)	395
Getting electricity (rank)	34	Protecting Investors (rank)	68	Cost (% of claim)	21.8
Procedures (number)	5	Extent of disclosure index (0-10)	8		
Time (days)	75	Extent of director liability index (0-10)	2	Resolving insolvency (rank)	18
Cost (% of income per capita)	8.7	Ease of shareholder suits index (0-10)	7	Time (years)	1.0
		Strength of Investor protection index (0-10)	5.7	Cost (% of estate)	8
		-		Recovery rate (cents on the dollar)	81.3
		Paying taxes (rank)	44	•	
		Payments (number per year)	11		

Time (hours per year)

Total tax rate (% of profit)

105

47.0

NEW ZEALAND		OECD high Income		GNI per capita (US\$)	38,222
Ease of doing business (rank)	3	High Income		Population (m)	4.4
Starting a business (rank)	1	Registering property (rank)	2	Trading across borders (rank)	21
Procedures (number)	1	Procedures (number)	2	Documents to export (number)	4
Time (days)	0.5	Time (days)	1	Time to export (days)	10
Cost (% of Income per capita)	0.3	Cost (% of property value)	0.1	Cost to export (US\$ per container)	870
Minimum capital (% of income per capita)	0.0			Documents to import (number)	6
		Getting credit (rank)	3	Time to Import (days)	9
Dealing with construction permits (rank)	12	Strength of legal rights index (0-10)	10	Cost to Import (US\$ per container)	825
Procedures (number)	11	Depth of credit information Index (0-6)	5		
Time (days)	94	Public registry coverage (% of adults)	0.0	 Enforcing contracts (rank) 	18
Cost (% of Income per capita)	28.3	Private bureau coverage (% of adults)	100.0	Procedures (number)	30
				Time (days)	216
Getting electricity (rank)	45	Protecting Investors (rank)	1	Cost (% of claim)	27.2
Procedures (number)	5	Extent of disclosure index (0-10)	10		
Time (days)	69	Extent of director liability index (0-10)	9	Resolving Insolvency (rank)	12
Cost (% of Income per capita)	97.0	Ease of shareholder suits index (0-10)	10	Time (years)	1.3
		Strength of Investor protection Index (0–10)	9.7	Cost (% of estate)	4
				Recovery rate (cents on the dollar)	83.3
		Paying taxes (rank)	23		
		Payments (number per year)	8		
		Time (hours per year)	152		
		Total tax rate (% of profit)	34.6		

		🗸 Reform maki	ng it easier to d	o business 🛛 😠 Reform making it more di	fficult to do busir
UNITED STATES		OECD high income		GNI per capita (US\$)	50,120
Ease of doing business (rank)	4	High Income		Population (m)	313.9
Starting a business (rank)	20	Registering property (rank)	25	Trading across borders (rank)	22
Procedures (number)	6	Procedures (number)	4	Documents to export (number)	3
Time (days)	5	Time (days)	12	Time to export (days)	6
Cost (% of income per capita)	1.5	Cost (% of property value)	3.4	Cost to export (US\$ per container)	1,090
Minimum capital (% of income per capita)	0.0			Documents to Import (number)	5
		Getting credit (rank)	3	Time to Import (days)	5
Dealing with construction permits (rank)	34	Strength of legal rights index (0–10)	9	Cost to Import (US\$ per container)	1,315
Procedures (number)	16	Depth of credit information index (0-6)	6		
Time (days)	91	Public registry coverage (% of adults)	0.0	Enforcing contracts (rank)	11
Cost (% of Income per capita)	16.7	Private bureau coverage (% of adults)	100.0	Procedures (number)	32
				Time (days)	370
Getting electricity (rank)	13	Protecting Investors (rank)	6	Cost (% of claim)	18.4
Procedures (number)	4	Extent of disclosure index (0-10)	7		
Time (days)	60	Extent of director liability index (0-10)	9	Resolving Insolvency (rank)	17
Cost (% of income per capita)	15.6	Ease of shareholder suits Index (0-10)	9	Time (years)	1.5
		Strength of Investor protection Index (0-10)	8.3	Cost (% of estate)	7
				Recovery rate (cents on the dollar)	81.5
		Paying taxes (rank)	64		
		Payments (number per year)	11		
		Time (hours per year)	175		

Total tax rate (% of profit)

Source: World Bank (2014). Doing Business 2014: International Ranking

46.3

Appendix G: Encouraging Private Sector Investment

- Authority to select private parties. Public entities need the authority both to select the private party which will perform the "public" activity of providing generation as well as to enter into legally binding relationships designed to produce a firm, reliable stream of payments to support project financing.
- **Exemption from taxes.** substantially lowering taxes and duties for renewable energy technologies,
- **Foreign loans and contracts**. Foreign investors need the right to remit, at the prevailing exchange rate at the time of the remittance, such sums required for the payment of interest and principal on foreign loans and obligations arising from contracts.
- **Freedom from expropriation.** Foreign investors need legal certainty that property represented by investments shall not be expropriated except in the interest of national welfare and upon prompt payment of just and adequate compensation.
- **Judicial stability.** Lending institutions sometimes require a judicial stability agreement to the effect that the tax regimes and the foreign exchange regimes valid at the granting of a concession will remain unchanged during the lifetime of the concession.
- **Reduction or Elimination of Import Duties.** High capital import duties and tariffs distort the market, artificially raising the price of goods and services. Waivers may be justified on the basis that investment is in "**pioneer**" (or start-up) industries.
- **Remittance of earnings.** Foreign investors need the right to remit earnings from foreign investments in the currency in which the investments were made and at the prevailing exchange rate at the time of remittance.
- **Repatriation of investments.** Foreign investors need the right to repatriate the entire proceeds of the liquidation of their investments in the currency in which the investments were made and at the prevailing exchange rates at the time of repatriation.
- Requisition of investment prohibited. Foreign investors need legal certainty that
 property represented by investments shall not be requisitioned except in time of war
 or national emergency and only for the duration thereof. In the event of such
 requisition, provisions need to be made to ensure that just compensation shall be
 determined and paid either at the time of requisition or immediately after the cessation
 of the state of war or national emergency.

Source: Organisation of American States - Democracy for peace, security and development. (Sept 2000) The Renewable Energy Policy Manual.

Appendix H: Importance of Emergency Management

Australia is experiencing an unprecedented expansion of its minerals and energy sectors. The Pilbara region of northwest Western Australia is a significant part of this outcome. Much of this involves on- and off-shore facilities that are vulnerable to natural disasters, industrial accidents and, potentially, acts of sabotage and other forms of violence and destruction.

A relatively minor disruption may result in a significant and costly loss of production. Nor is the cost restricted to export earnings: loss of employment, environmental damage and the impact on local, regional and national economies cannot be under-estimated.

To help prevent and alleviate such disasters, Australia requires a national capability.

- This capability must be able to plan for [and recover from] such disasters.
- It must have an analytical and research capacity,
- The ability to develop the necessary doctrine and capabilities
- And the authority to deploy and direct assets.

Capabilities require time to develop. This involves not only identifying the personnel needed but also considerations relating to doctrine, training and preparation, equipment and communications and aspects of command and control.

Many of these capabilities will not necessarily be dedicated to disaster or emergency management. Instead they will include existing national and state emergency and security forces as well as health, communications, transport and other agencies. Well-established disaster management forces within the private sectors should also be incorporated.

KEY POINTS

- Regional development in northwest Australia suggests that the Pilbara will increasingly continue to be a significant generator of wealth for Australia, Western Australia and the region itself.
- The rise of the Pilbara's economic profile is accompanied with an increased sense of vulnerability to existing, as well as emerging threats. These threats may be human, environmental or industrial.
- The region has some experience of natural disasters and industrial accidents, such as cyclones and Varanus Island. These events have shown how vulnerable the region is to emergency situations and the challenge of dealing with them.
- The Pilbara's economic credentials and importance as a resource and energy export hub make it particularly vulnerable to catastrophic disaster.
- The circumstances and consequences of such events require a unique emergency management response. Currently, doubts remain over Australia's ability to manage a large-scale disaster.

Source: Future Directions, (May 2013). Pilbara Prospects 2020 Developments and Challenges for the Region

APPENDIX I: DEVELOPMENT OF THE NORTH

Views of Peter Long, Shire President of the Shire of Roebourne

It is now becoming recognised at a federal level, that one of the pillars of the future prosperity of Australia will be development of the North of our country. While remote, generally arid, with low population and a difficult economic history, the Asian economic miracle and its need for resources has changed the equation. Our North is close to Asia: Darwin is less than 500 km from the island of Timor; Broome is only 1280 km from Denpasar, Bali. Our North has vast mineral wealth, huge areas suitable for meat production, largely uninterrupted solar irradiation and parts have extensive water resources. What once was the North's handicap – distance from markets, low population and difficult working conditions – has reduced the exploitation of these resources and made them available for the new century.

Development means growth and progress and is generally considered to be synonymous with new infrastructure, towns, industries and businesses. While it is indeed this, it also means growth that is sustainable, balanced, long term – progress that ensures people can and will want to live in the new world we have made. Finally we have realised that cutting down all the trees without planting new ones to keep the wood-cutters' sons in work, is both pointless and stupid. So it is with the resources of the North: we want to be still utilising them for our well-being in 100, 200 years time. Planning is therefore a vital prerequisite to development. Our Plan needs to consider what Australians want and need to live a good live in the North and provide a mechanism to ensure that we allow for this in the new projects.

To develop the North, we need to consider both what our region can produce and also what our client nations require and how we can supply that demand. The traditional limitations for the North - remoteness, lack of infrastructure, extreme weather, vast internal distances – have been reduced in Western Australia through investment by the resource industry. The great wealth that has come from iron ore production in particular, especially over the last decade when China's mineral imports have increased exponentially, has provided some extensive, but generally private infrastructure in the form of new towns, railways and ports. Roads and airports to service the mines and ports have also opened up the Pilbara over the last 50 years. However, when mineral prices drop, as happens in the cyclic resource industry, the towns go quiet, investment stops and the local economy stagnates.

The second requirement for the North, after Planning, is clearly Diversity of economic opportunity. With a diverse economic base, remote towns and cities are not dependant on the price of one particular commodity for their well-being. Diversity also means that a range of different support industries and professions can flourish which in turn means people can live their lives in these towns, not just visit for the big money before settling elsewhere.

To attract people to live we need an environment where people can recreate, be entertained, self-improve, be educated, communicate and travel with a similar ease as is expected in the South. Appropriate infrastructure: roads, sporting venues, cultural venues, communication links, etc are vital. The WA State Government Royalties for Regions initiative has been remarkable for recognising this and directing mineral wealth back into the regions rather than siphoning off the wealth to the major population centres, as is traditionally the case. This process has transformed Karratha and Port Hedland and the initiative needs to be maintained.

Apart from protection of critical landscape, development of some of these areas at least will be required to ensure recreational opportunities exist for a wide range of the population. To date there has been no initiatives in this space at all.

The Shire of Roebourne in particular has been reviewing possible new industries that can provide diversity of income for the North. Possibilities raised include:

- Servicing of the minerals industry through provisions of warehousing, manpower, maintenance services, materials and consumables supply.
- Solar energy photovoltaic and concentrating solar power (CSP) installations.
- Algal Biofuel growth of microalgae on the vast coastal saline flats of the north-west.
- Agriculture both damming of rivers and deep mining activities provide water in the north-west. Deep voids required by current mines release vast quantities of fresh groundwater which can be used to grow crops.
- Hi-tech service industries: the vast mining infrastructure built by the mining and oil & gas companies has resulted in some areas of world-leading technology. The size of the projects and the wealth generated can be spun off to develop secondary service industries.
- Education: following on from the previous point, location of post-graduate university study centres in the North would allow researchers to be close to the action in developing new technologies and processes associated with the mining and oil & gas industries.

Existing industries can also be expanded and developed to meet the new markets. These may include:

- Grazing how can we make the grazing industry more viable and productive? What markets exist and what new ones can we develop?
- Mining what is holding back the small miners? How can we help them what are their issues?
- Tourism in many areas tourism has nearly died because of a lack of labour, high costs of both labour and equipment, poor roads, poor communication, low quality accommodation, low quality or inadequate tours and tourist experiences. The North is unique in world terms and tourism can be developed much further.

Note that Tourism and Mining will sometimes have conflicting land uses. No-one wants a mine in their back yard or a beautiful recreational area. To stop the arguments at the project approval level, an inventory of valuable places needs to be developed where we can say "no mining" so that the mining approvals process can be made much quicker.

Further to the industry-related opportunities, government (local, State and Federal) needs to support the North through:

- Local placement of defence personnel, equipment and weaponry
- Regional location of government departments
- Tourism support
- Quality secondary, technical and further education facilities.
- Quality medical care
- Adequate child-care
- Fast data transfer and communications services

- Sporting and cultural facilities
- Recreational facilities
- Appropriate infrastructure roads, ports, power, water sewage etc

Finally, commercial ventures need to be promoted. These include professional and non-professional businesses which are needed to support a community.

How can the Federal Government assist in this?

The North needs impetus to overcome the challenges of distance to markets, remoteness from population centres and difficulties of climate. This impetus needs to come from:

- Investment in infrastructure particularly roads and ports.
- Assistance to State Governments in providing other infrastructure and services.
- Tax concessions make it worthwhile for people on normal salaries to come North by
 reducing the tax burden. Currently businesses have to pay more to attract staff which
 increases the cost of all business in the North. If people can come to the North on a
 salary reasonably commensurate with the South, but pay far less tax, it will enable
 businesses to prosper.
- Investment inducements promote new business investment by providing tax holidays, reduced taxation rates in particular areas.
- Identifying new business opportunities doing studies, funding pilot projects, getting
 proposals ready to sell to overseas investors. We cannot say "we have it all come
 and invest" we need to say "here is an opportunity for you".
- Developing business relationships with our trading partners: not just China and Japan, but Indonesia, ASEAN countries, India and South American countries in addition to more traditional markets.

The North must be allowed to buzz and to do this the advantages of investing here must be recognised - people have got to be able to make money. This results in more taxation revenue and more jobs. It doesn't happen by hoping and praying – we all need to work at this together to make it happen.

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